

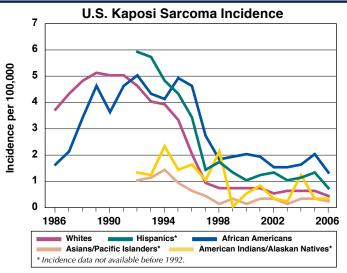
A Snapshot of Kaposi Sarcoma

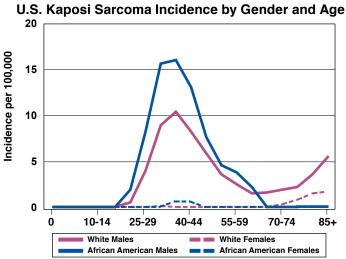
Incidence and Mortality Rate Trends

Kaposi sarcoma (KS) is a soft-tissue sarcoma that affects the skin, oral cavity, esophagus, and anal canal. "Classic" KS is rare and is found mainly in older men of Mediterranean or Jewish heritage. Immunosuppressed individuals are also at increased risk for KS. The incidence of KS rose sharply in the 1980s with the emergence of acquired immune deficiency syndrome (AIDS), and it is now the most common tumor associated with human immunodeficiency virus (HIV) infection. Scientists have identified a virus, called Kaposi sarcomaassociated herpes virus (KSHV), which is believed to cause KS in immunocompromised individuals.

The incidence of KS dropped dramatically between the mid-1990s and 2000 and has remained relatively stable since then. Men are much more likely to develop KS than women, particularly between the ages of 25 and 59. Since 2000, the incidence has been highest in African Americans and lowest in Asians and Pacific Islanders.

Source for incidence data: Surveillance, Epidemiology, and End Results (SEER) Program and the National Center for Health Statistics. Additional statistics and charts are available at http://seer.cancer.gov/.



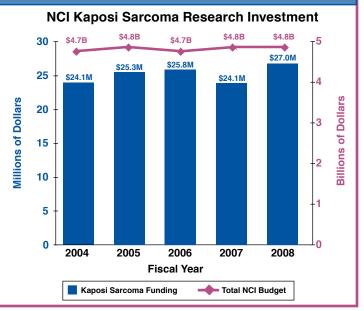


Trends in NCI Funding for Kaposi Sarcoma Research

The National Cancer Institute's (NCI) investment¹ in KS research increased from \$24.1 million in fiscal year 2004 to \$27.0 million in fiscal year 2008.

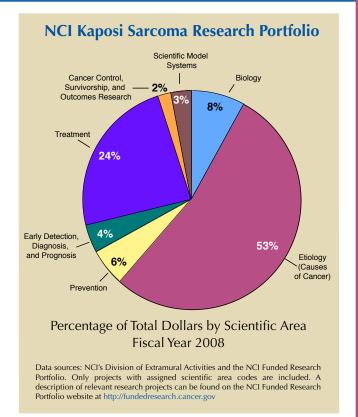
Source: NCI Office of Budget and Finance (http://obf.cancer.gov).

'The estimated NCI investment is based on funding associated with a broad range of peer-reviewed scientific activities. For additional information on research planning and budgeting at the National Institutes of Health (NIH), see http://www.nih.gov/about/.



Examples of NCI Activities Relevant to Kaposi Sarcoma

- The AIDS Malignancy Consortium includes 14 clinical trials sites and their affiliates. These sites are enhancing therapeutic options for patients with AIDS-associated malignancies. http://pub.emmes.com/study/amc/public/ index.htm
- The AIDS Malignancy Program supports preclinical and clinical studies on the treatment of cancer in HIV-positive and immunocompromised people. http://ctep.cancer. gov/additionalResources/aids_malignancy/default.htm
- The Sarcoma Progress Review Group (PRG), a panel of experts and patient advocates, assessed the state of the science and identified future research priorities for all types of sarcoma, including KS. http://planning.cancer. gov/library/2004sarcoma.pdf
- NCI's Infections and Immunoepidemiology Branch conducts high-impact epidemiologic research on infectious agents and cancer, including KS and other HIV/ AIDS-associated malignancies. Projects include linkages of population-based AIDS and cancer registration data covering nearly half of the U.S. AIDS population and estimates of the magnitude and types of cancer among people with HIV/AIDS in India. http://dceg.cancer.gov/ veb
- The AIDS Virus Studies Program supports studies on the role of HIV and related viruses in the development • of AIDS-associated cancers. http://dcb.nci.nih.gov// branchdetail.cfm?branch=35
- The Center of Excellence in HIV/AIDS and Cancer Virology facilitates and communicates advances in • antiviral and immunologic approaches for preventing and treating HIV infection, AIDS-related malignancies,



and cancer-associated viral diseases. http://ccr.ncifcrf. gov/initiatives/CEHIV/

- Biomarkers of Infection-Associated Cancers **Program** supports research on identifying biomarkers for cancers caused by infectious agents. http://grants.nih. gov/grants/guide/pa-files/PA-08-156.html
- The NCI is sponsoring a Phase II clinical trial to study biological therapy (Bevacizumab) in patients with Kaposi sarcoma. http://www.cancer.gov/clinicaltrials/ft-NCI-03-C-0110G
- The AIDS-Related Cancers Home Page provides up-todate information on treatment options for AIDS-related cancers such as KS. http://cancer.gov/cancerinfo/types/ **AIDS**

Selected Advances in Kaposi Sarcoma Research

- therapeutic option than single-agent therapy in Kaposi sarcoma patients. http://www.ncbi.nlm.nih.gov/ pubmed/18922908
- Researchers discovered how Kaposi sarcoma herpesvirus infection transforms blood endothelial cells into • lymphatic endothelial cells. http://www.ncbi.nlm.nih. gov/pubmed/18579585
- A novel dual-action drug may be a more effective Advanced imaging techniques yield new information on how HIV infects immune system cells and offer clues for designing better strategies for combating HIV. http://www.cancer.gov/newscenter/pressreleases/ HIVspikeSubramaniam
 - Researchers discovered how Kaposi sarcoma-associated herpesvirus modulates the innate immune system. http:// www.ncbi.nlm.nih.gov/pubmed/18367536